XX
PS Claim 13; Page 203; 236pp; English.
XX
CC This is an immunodominant peptide epitope from the M. tuberculosis 32A
CC kD protein. Sequences shown in AAW75642 to AAW75698 represent synthetic
CC peptides derived from the native 32A kD major secretory protein of
CC Mycobacterium tuberculosis. These peptides are used for identifying the
CC immunodominant T-cell epitope of the 32A kD protein. The invention
CC provides an agent for vaccinating mammals against Mycobacterium. The
CC agent comprises at least one of the major abundant extracellular 110, 80,
CC 71, 58, 45, 32A, 32B, 30, 24, 23.5, 23, 16, 14 or 12 kD proteins of M.
CC tuberculosis, or at least 1 of their immunodominant epitopes and
CC interleukin-12 (IL-12) or MF59 as adjuvants. The agent containing the
CC nucleic acid encoding the extracellular products are used to raise a
CC protective or therapeutic immune response against Mycobacterium,
CC specifically M. tuberculosis. The immunodominant epitopes can also be
CC used (typically in a cutaneous hypersensitivity test) to detect an immune
CC response to vaccination. Preparation of the agent does not require
CC selection of the most immunogenic products, so large scale production and
CC purification are easy, resulting in a consistent, standardised
CC formulation, having lower toxicity than killed or attenuated vaccines.
CC The agents provide a rapid and effective response (including a strong
CC cell-mediated component) and are safe even in immunocompromised subjects.
CC They prevent development of an opsonising humoral response that might
CC spread intracellular pathogens.
XX
SQ Sequence 15 AA;

Query Match 100.0%; Score 84; DB 19; Length 15;
Best Local Similarity 100.0%; Pred. No. 2.7e-08;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 GLRAQDDFSGWDINT 15
||||||||||||||||
Db 1 glraqddfsgwdint 15

RESULT 2
AAR11298
ID AAR11298 standard; Protein; 20 AA.
XX
AC AAR11298;
XX
DT 30-MAY-1991 (first entry)
XX
DE Recombinant 36-55 antigenic peptide from M.tuberculosis 32kD Ag.
XX
KW tuberculosis; vaccine; BCG; 32kD antigen.
XX
OS Mycobacterium tuberculosis.
XX
PN EP419355-A.
XX
PD 27-MAR-1991.
XX
PF 19-SEP-1990; 90EP-0402590.
XX
PR 19-SEP-1989; 89EP-0402571.
PR 19-SEP-1990; 90EP-0402590.
XX
PA (INNO-) INNOGENETICS NV SA.
XX
PI Content J, De Wit L, De Bruyn J, Van Vooren JP;
XX
DR WPI; 1991-088933/13.
XX
PT Polypeptide comprising recombinant polypeptide - with defined
PT peptide sequence(s) used for diagnosis and for preparing vaccine
PT against tuberculosis
XX
PS Claim 45; Page 72; 134pp; English.
XX
CC This peptide corresponds to amino acids 36 to 55 of mature 32kD
CC antigen of M.tuberculosis. It is used to produce antibodies,
CC particularly monoclonal antibodies,for the diagnosis of evolutive
CC tuberculosis.
CC See also AAQ11081-3, AAQ11086-Q11090, AAQ11101-8, AAR11297,
CC AAR11299-R11304.
XX
SQ Sequence 20 AA;

Query Match 100.0%; Score 84; DB 12; Length 20;
Best Local Similarity 100.0%; Pred. No. 3.8e-08;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 GLRAQDDFSGWDINT 15
||||||||||||||||
Db 6 glraqddfsgwdint 20

RESULT 3
AAY96926
ID AAY96926 standard; Protein; 302 AA.
XX
AC AAY96926;
XX
DT 31-OCT-2000 (first entry)
XX
DE M. tuberculosis antigen 85A.
XX
KW Interleukin 12; IL-12; gamma-interferon; antigen; stimulate;
KW immunostimulant; immunomodulatory; secretory protein.
XX
OS Mycobacterium tuberculosis.
XX
PN WO200039301-A2.
XX
PD 06-JUL-2000.
XX
PF 23-DEC-1999; 99WO-US30975.
XX
PR 24-DEC-1998; 98US-0220416.
XX
PA (CORI-) CORIXA CORP.
XX
PI Skeiky Y;
XX
DR WPI; 2000-452399/39.
DR N-PSDB; AAA53601.
XX
PT Potentiating immune responses to antigens using specified Mycobacterium
PT tuberculosis proteins
XX
PS Claim 1; Fig 4B; 30pp; English.
XX
CC The Mycobacterium tuberculosis proteins encoded by AAA53599-603
CC stimulate interleukin (IL)-12 and gamma-interferon production. A number
CC of cloned M. tuberculosis antigens were expressed as recombinant proteins
CC in Escherichia coli. After purification, these proteins were tested for
CC their ability to stimulate the production of IL-12 by a mouse macrophage
CC cell line, RAW264. The concentrations of IL-12 in RAW264 culture
CC supernatants were measured by an ELISA using an antibody to detect the
CC p40 component of the IL-12. Among the 18 proteins tested, only 2,
CC designated DPV and DPAS stimulated the production of IL-12. The
CC stimulatory activities of these proteins were not affected by the
CC inclusion of polymixin B in the cultures, which abrogated the IL-12
CC stimulatory activities of lipopolysaccharide, a polyclonal B cell
CC mitogen. Both DPV and DPAS are secretory proteins of M. tuberculosis.
CC A method of using the M. tuberculosis proteins to induce and potentiate
CC immune reactions to antigens is claimed.
XX
SQ Sequence 302 AA;

XX
PS Claim 13; Page 203; 236pp; English.
XX
CC This is an immunodominant peptide epitope from the M. tuberculosis 32A
CC kD protein. Sequences shown in AAW75642 to AAW75698 represent synthetic
CC peptides derived from the native 32A kD major secretory protein of
CC Mycobacterium tuberculosis. These peptides are used for identifying the
CC immunodominant T-cell epitope of the 32A kD protein. The invention
CC provides an agent for vaccinating mammals against Mycobacterium. The
CC agent comprises at least one of the major abundant extracellular 110, 80,
CC 71, 58, 45, 32A, 32B, 30, 24, 23.5, 23, 16, 14 or 12 kD proteins of M.
CC tuberculosis, or at least 1 of their immunodominant epitopes and
CC interleukin-12 (IL-12) or MF59 as adjuvants. The agent containing the
CC nucleic acid encoding the extracellular products are used to raise a
CC protective or therapeutic immune response against Mycobacterium,
CC specifically M. tuberculosis. The immunodominant epitopes can also be
CC used (typically in a cutaneous hypersensitivity test) to detect an immune
CC response to vaccination. Preparation of the agent does not require
CC selection of the most immunogenic products, so large scale production and
CC purification are easy, resulting in a consistent, standardised
CC formulation, having lower toxicity than killed or attenuated vaccines.
CC The agents provide a rapid and effective response (including a strong
CC cell-mediated component) and are safe even in immunocompromised subjects.
CC They prevent development of an opsonising humoral response that might
CC spread intracellular pathogens.
XX
SQ Sequence 15 AA;

Query Match 100.0%; Score 88; DB 19; Length 15;
Best Local Similarity 100.0%; Pred. No. 6.7e-07;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CGNGKPSDLGGNNLP 15
||||||||||||||||
Db 1 cgngkpsdlggnnlp 15

RESULT 2
AAW63038
ID AAW63038 standard; peptide; 17 AA.
XX
AC AAW63038;
XX
DT 23-OCT-1998 (first entry)
XX
DE M. tuberculosis 32A kD protein derived peptide 43A (residues 211-227).
XX
KW Mycobacterium tuberculosis; vaccination; extracellular product;
KW immunodominant epitope; interleukin-12; MF59; immune response;
KW opsonising humoral response; intracellular pathogen.
XX
OS Synthetic.
OS Mycobacterium tuberculosis.
XX
PN WO9831388-A1.
XX
PD 23-JUL-1998.
XX
PF 15-JAN-1998; 98WO-US00942.
XX
PR 21-JAN-1997; 97US-0786533.
XX
PA (REGC) UNIV CALIFORNIA.
XX
PI Harth G, Horwitz MA, Lee B;
XX
DR WPI; 1998-413815/35.
XX
PT Vaccines against Mycobacterium containing major extracellular
PT proteins - used to, e.g. induce protective and therapeutic immune
PT responses, and for detecting an immune response

PS Example 29; Page 101; 236pp; English.
XX
CC represents a synthetic peptide derived from th... kD major
CC secretory protein of M. tuberculosis. This is u... tifying the
CC immunodominant T-cell epitope of the 32A kD pr... vention
CC provides an agent for vaccinating mammals agai... rium. The
CC agent comprises at least one of the major abun... ilular 110,
CC 80, 71, 58, 45, 32A, 32B, 30, 24, 23.5, 23, 1... kD proteins of
CC M. tuberculosis, or at least 1 of their immuno... pes and
CC interleukin-12 (IL-12) or MF59 as adjuvants. T... ining the
CC nucleic acid encoding the extracellular produc... raise a
CC protective or therapeutic immune response agai... rium,
CC specifically M. tuberculosis. The immunodomina... an also be
CC used (typically in a cutaneous hypersensitivi... ect an
CC immune response to vaccination. Preparation of... s not require
CC selection of the most immunogenic products, so... production and
CC purification are easy, resulting in a consiste... ised
CC formulation, having lower toxicity than killed... d vaccines.
CC The agents provide a rapid and effective respo... ing a strong
CC cell-mediated component) and are safe even in ... mised subjects.
CC They prevent development of an opsonising humor... that might
CC spread intracellular pathogens.
XX
SQ Sequence 17 AA;

Query Match 100.0%; Score 88; DB 1...
Best Local Similarity 100.0%; Pred. No. 7.6e-...
Matches 15; Conservative 0; Mismatches ... 0; Gaps 0;

Qy 1 CGNGKPSDLGGNNLP 15
||||||||||||||||
Db 1 cgngkpsdlggnnlp 15

RESULT 3
AAR11302
ID AAR11302 standard; Protein; 20 AA.
XX
AC AAR11302;
XX
DT 30-MAY-1991 (first entry)
XX
DE Recombinant 211-230 antigenic peptide from M.t... kD Ag.
XX
KW tuberculosis; vaccine; BCG; 32kD antigen.
XX
OS Mycobacterium tuberculosis.
XX
PN EP419355-A.
XX
PD 27-MAR-1991.
XX
PF 19-SEP-1990; 90EP-0402590.
XX
PR 19-SEP-1989; 89EP-0402571.
PR 19-SEP-1990; 90EP-0402590.
XX
PA (INNO-) INNOGENETICS NV SA.
XX
PI Content J, De Wit L, De Bruyn J, Van Voore...
XX
DR WPI; 1991-088933/13.
XX
PT Polypeptide comprising recombinant polypeptid...
PT peptide sequence(s) used for diagnosis and fo... ine
PT against tuberculosis
XX
PS Claim 45; Page 72; 134pp; English.
XX
CC This peptide corresponds to amino acids 211 t... 32kD
CC antigen of M.tuberculosis. It is used to prod...
CC particularly monoclonal antibodies,for the di... ctive

CC tuberculosis.
CC See also AAQ11081-3, AAQ11086-Q11090, AAQ11101-8, AAR11297-R11301,
CC AAR11303-4.
XX
SQ Sequence 20 AA;

Query Match 100.0%; Score 88; DB 12; Length 20;
Best Local Similarity 100.0%; Pred. No. 8.9e-07;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CGNGKPSDLGGNNLP 15
||||||||||||||||
Db 1 cgngkpsdlggnnlp 15

RESULT 4
AAY96926
ID AAY96926 standard; Protein; 302 AA.
XX
AC AAY96926;
XX
DT 31-OCT-2000 (first entry)
XX
DE M. tuberculosis antigen 85A.
XX
KW Interleukin 12; IL-12; gamma-interferon; antigen; stimulate;
KW immunostimulant; immunomodulatory; secretory protein.
XX
OS Mycobacterium tuberculosis.
XX
PN WO200039301-A2.
XX
PD 06-JUL-2000.
XX
PF 23-DEC-1999; 99WO-US30975.
XX
PR 24-DEC-1998; 98US-0220416.
XX
PA (CORI-) CORIXA CORP.
XX
PI Skeiky Y;
XX
DR WPI; 2000-452399/39.
DR N-PSDB; AAA53601.
XX
PT Potentiating immune responses to antigens using specified Mycobacterium
PT tuberculosis proteins
XX
PS Claim 1; Fig 4B; 30pp; English.
XX
CC The Mycobacterium tuberculosis proteins encoded by AAA53599-603
CC stimulate interleukin (IL)-12 and gamma-interferon production. A number
CC of cloned M. tuberculosis antigens were expressed as recombinant proteins
CC in Escherichia coli. After purification, these proteins were tested for
CC their ability to stimulate the production of IL-12 by a mouse macrophage
CC cell line, RAW264. The concentrations of IL-12 in RAW264 culture
CC supernatants were measured by an ELISA using an antibody to detect the
C p40 component of the IL-12. Among the 18 proteins tested, only 2,
C designated DPV and DPAS stimulated the production of IL-12. The
C stimulatory activities of these proteins were not affected by the
C inclusion of polymixin B in the cultures, which abrogated the IL-12
C stimulatory activities of lipopolysaccharide, a polyclonal B cell
C mitogen. Both DPV and DPAS are secretory proteins of M. tuberculosis.
C A method of using the M. tuberculosis proteins to induce and potentiate
C immune reactions to antigens is claimed.
X
Sequence 302 AA;

Query Match 100.0%; Score 88; DB 21; Length 302;
Best Local Similarity 100.0%; Pred. No. 1.2e-05;
Matches 15; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CGNGKPSDLGGNNLP 15
||||||||||||||||
Db 218 cgngkpsdlggnnlp 232

RESULT 5
AAR11296
ID AAR11296 standard; Protein; 338 AA.
XX
AC AAR11296;
XX
DT 30-MAY-1991 (first entry)
XX
DE Recombinant M.tuberculosis 32kD antigen.
XX
KW tuberculosis; vaccine; BCG; antigen.
XX
OS Mycobacterium tuberculosis.
XX
FH Key Location/Qualifiers
FT Peptide 1..43
FT /label= signal peptide
FT Protein 44..338
FT /label= tuberculosis 32kD anti
XX
PN EP419355-A.
XX
PD 27-MAR-1991.
XX
PF 19-SEP-1990; 90EP-0402590.
XX
PR 19-SEP-1989; 89EP-0402571.
PR 19-SEP-1990; 90EP-0402590.
XX
PA (INNO-) INNOGENETICS NV SA.
XX
PI Content J, De Wit L, De Bruyn J, Van Voore
XX
DR WPI; 1991-088933/13.
DR N-PSDB; AAQ11082.
XX
PT Polypeptide comprising recombinant polypeptic
PT peptide sequence(s) used for diagnosis and fo
PT against tuberculosis
XX
PS Claim 3; Fig 5; 134pp; English.
XX
CC Polyclonal antiserum was raised in rabbits to
CC bovis BCG. The antiserum was then used to scre
CC recombinant DNA library constructed from genom
CC tuberculosis (Erdman strain). Positive clones
CC sequenced. The deduced amino-terminal amino a
CC mature protein corresponds to the same amino
CC MPB 59 antigen except for 3 amino acid differ
CC polypeptides of the invention contain at leas
CC selected from the following (numbering refers
CC position 1 as -43, etc.): -30 to -1, 12 to 31
CC 101 to 120, 175 to 194, 211 to 230 and 275 to
CC See also AAQ11081, AAQ11083, AAQ11086-90, AAQ
XX
SQ Sequence 338 AA;

Query Match 100.0%; Score 88; DB 1
Best Local Similarity 100.0%; Pred. No. 1.4e-
Matches 15; Conservative 0; Mismatches

Qy 1 CGNGKPSDLGGNNLP 15
||||||||||||||||
Db 254 cgngkpsdlggnnlp 268

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297-R11304.

0; Gaps 0;